A logo for college computing

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**Assessment Cover Page**

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| *Module Title* | *HDip in AI Applications* |
| *Assessment Title* | *CA1 In Class Assessment* |
| *Assessment Due Date* | *28/04/2024* |
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**Declaration**

By submitting this assessment, I confirm that I have read the CCT policy on academic misconduct and understand the implications of submitting work that is not my own or does not appropriately reference material taken from a third party or other source.

I declare it to be my own work and that all material from third parties has been appropriately referenced.

I further confirm that this work has not previously been submitted for assessment by myself or someone else in CCT College Dublin or any other higher education institution.

Introduction (96 words):

The housing market is a complex ecosystem influenced by various socio-economic factors, policies, and trends. Accurately predicting housing prices is crucial for stakeholders like buyers, sellers, and policymakers. Leveraging machine learning algorithms can comprehensively analyze housing data for informed predictions. This project aims to develop and deploy machine learning models for predicting housing prices based on relevant features.

Motivation (82 words):

The project is motivated by the housing market's significant role in the economy and society. Housing is essential and a major financial asset. Precise price predictions can empower decision-making for buyers, sellers, real estate agents, and policymakers. By using advanced machine learning techniques, the project aims to enhance prediction accuracy and improve decision-making in the housing market.

Description of the Problem Domain (141 words):

The project focuses on understanding the factors influencing housing prices and building models to predict them accurately. Variables such as location, property size, amenities, neighbourhood characteristics, economic indicators, and market trends affect housing prices. Analysing these factors requires sophisticated tools like machine learning. Additionally, factors like population growth, urban development, interest rates, and regulatory changes also play significant roles. By integrating these diverse factors into our models, we aim to provide robust and reliable predictions that can assist stakeholders in making informed decisions in the dynamic housing market landscape.

Total word count: 319